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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,145	12/30/2005	Dung Dao Viet	OVL0003US	4566
23413 7590 11/22/2011 CANTOR COLBURN LLP 20 Church Street 22nd Floor Hartford, CT 06103				
EXAMINER HUANG, CHENG YUAN				
ART UNIT		PAPER NUMBER		
1787				
NOTIFICATION DATE		DELIVERY MODE		
11/22/2011		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptopatentmail@cantorcolburn.com

# Office Action Summary

**Application No.**

10/563,145

**Applicant(s)**

VIET ET AL.

**Examiner**

CHENG HUANG

**Art Unit**

1787

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 October 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 5) ☒ Claim(s) 21, 22 and 24-26 is/are pending in the application.
- 5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 21, 22 and 24-26 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-C100)  
Paper No(s)/Mail Date \_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 21-22 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. (U.S. Patent No. 4,863,782) in view of Eby et al. (U.S. Patent No. 6,753,066) and Schmidle et al. (U.S. Patent No. 4,491,616) and Courtoy et al. (U.S. Patent No. 7,081,291).

4. Regarding claims 21, 24, and 26, Wang et al. teaches a surface covering (See Title) comprising a substrate (felt layer 60, col. 9, lines 27-28), a plastic layer applied over the substrate (foamed layer 62, col. 9, line 29-30) containing a foaming agent (col. 9, lines 30-35), a first printing ink in a first pattern on said plastic layer (printing design 64, col. 9, line 41, Fig. 10), and a non curable coating made from plastisol (col. 9, lines 9-16 and 62-68) given that it is clear the second layer 66 (col. 9, line 65) is made from PVC plastisol similar to wearlayer 24 (col. 9, lines

14-16) given that second layer 66 is also a transparent wearlayer (col. 9, lines 66-67) similar to wearlayer 24 (col. 9, lines 12-13) overlaying the plastic layer and the ink (second layer 66, col. 9, lines 64-65, Fig. 10). A layer is considered to be a coating.

5. Wang et al. fails to teach a cured coating overlaying the non-curable coating.

6. However, Eby et al. teaches a surface covering (See Title) wherein a cured coating overlaying an ink is mechanically embossed (col. 3, lines 46-62 and 35-39).

7. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a cured coating overlaying the non-curable coating of Wang et al. to further protect underlying layers.

8. Wang et al. fails to teach the first printing ink containing a photoinitiator or that the plastic layer is gelled.

9. However, Schmidle et al. teaches a surface covering (See Title) comprising an ink containing a photoinitiator (col. 9, lines 3-8, col. 12, lines 1-4, col. 3, lines 54-62).

10. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a photoinitiator in the ink of Wang et al. to create surface areas with an embossed flat, dead, or dull mat finish or texture (Schmidle et al, col. 3, lines 54-59).

11. Schmidle et al. further teaches wherein a plastic layer is gelled (col. 6, line 39, col. 7, line 67).

12. It would have been obvious to one of ordinary skill in the art at the time of the invention to gel the plastic layer of Wang et al. for easier handling and processing (col. 7, line 67-col. 8, line 34).

13. Wang et al. fails to teach a second printing ink containing a second photoinitiator and an expansion inhibitor in a second pattern or that portion of the gelled plastic layer that does not underlie the second printing ink expands.

14. However, Courtoy et al. teaches a surface covering (See Title) a second printing ink containing a second photoinitiator and an expansion inhibitor in a second pattern (col. 3, lines 31-34) and that portion of the plastic layer that does not underlie the second printing ink expands (col. 4, lines 23-25).

15. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a second printing ink on the surface of the gelled plastic layer of Wang et al. as modified by Schmidle et al. to be a joint between two tiles so as to imitate ceramic tiling (col. 3, lines 37-42) and to have the portion of the gelled plastic layer of Wang et al. as modified by Schmidle et al. that does not underlie the second printing ink expand for a smooth over (Courtoy et al., col. 4, line 23).

16. Wang et al. as modified by Eby et al., Schmidle et al., and Courtoy et al. teaches a surface covering (Wang et al., See Title) mechanically embossing the second, curable coating in areas that are not disposed over the first and second printing inks, wherein the portion of the cured coating or cured layer, which is not overlaying or disposed over the first and second printing inks, is embossed with a first texture and the cured coating not overlaying or disposed over the first and second printing inks is mechanically embossed with a second texture, given that with the inclusion of the photoinitiator of Schmidle et al. in the inks of Wang et al. the portion of the cured coating that is not disposed over the inks will have a texture different from the portion of the cured coating disposed over the inks (Schmidle et al., See Figure 4A).

17. The limitations “obtained by a method of making a surface covering...k. curing the second, curable coating” and “mechanically embossed” are process limitations. It is noted that “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process”, *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Further, “although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product”, *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983). See MPEP 2113.

18. Therefore, absent evidence of criticality regarding the presently claimed process and given that Wang et al. as modified by Eby et al. and Schmidle et al. meets the requirements of the claimed surface covering, the prior art clearly meets the requirements of present claims. Furthermore, the claimed limitations of embossing are taught by the prior art, as disclosed above.

19. Regarding claim 22, Wang et al. teaches a surface covering (See Title) which comprises a substrate (felt layer 60, col. 9, lines 27-28), a foamed and chemically embossed plastic layer overlaying the substrate (foamed layer 62, col. 9, line 29-30, col. 10, lines 31-39), a first printing ink in a first pattern design on said foamed plastic layer (printing design 64, col. 9, line 41, Fig. 10), and a non cured coating overlaying the foamed plastic layer and the ink (second layer 66, col. 9, lines 64-65, Fig. 10).

20. Wang et al. fails to teach a cured coating or cured layer overlaying the non-cured coating.

21. However, Eby et al. teaches a surface covering (See Title) wherein the portion of the cured coating or layer overlaying an ink is chemically and/or mechanically embossed (col. 3, lines 46-62 and 35-39).
22. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a cured coating overlaying the non-cured coating of Wang et al. to further protect underlying layers.
23. Wang et al. fails to teach a first printing ink containing a photoinitiator.
24. However, Schmidle et al. teaches a surface covering (See Title) comprising a printing ink containing a photoinitiator (col. 9, lines 3-8, col. 12, lines 1-4, col. 3, lines 54-62).
25. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a photoinitiator in the first printing ink of Wang et al. to create surface areas with an embossed flat, dead, or dull mat finish or texture (Schmidle et al, col. 3, lines 54-59).
26. Wang et al. fails to teach a second printing ink containing a second photoinitiator and an expansion inhibitor in a second pattern or that portion of the foamed plastic layer that does not underlie the second printing ink expand upon exposure to heat.
27. However, Courtoy et al. teaches a surface covering (See Title) a second printing ink containing a second photoinitiator and an expansion inhibitor in a second pattern (col. 3, lines 31-34) and that portion of the plastic layer that does not underlie the second printing ink expands upon exposure to heat (col. 4, lines 17-18 and 23-25).
28. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a second printing ink on the surface of the foamed plastic layer of Wang et al. as modified by Schmidle et al. to be a joint between two tiles so as to imitate ceramic tiling (col. 3,

lines 37-42) and to have the portion of the plastic layer of Wang et al. as modified by Schmidle et al. that does not underlie the second printing ink expand for a smooth over (Courtoy et al., col. 4, line 23).

29. Limitations regarding “printing”, “chemically embossed”, “mechanically embossed”, and “upon exposure to heat” are process limitations. It is noted that “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process”, *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Further, “although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product”, *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983). See MPEP 2113.

30. Therefore, absent evidence of criticality regarding the presently claimed process and given that Wang et al. as modified by Eby et al., Schmidle et al., and Courtoy et al. meets the requirements of the claimed surface covering, the prior art clearly meets the requirements of present claims. Furthermore, the recited limitations are taught by the prior art, as disclosed above.

31. Regarding claim 25, Wang et al. fails to teach wherein the cured coating or cured layer further comprising comprises a polyurethane coating.



32. However, Eby et al. teaches a surface covering (See Title) wherein a cured layer (wear layer, col. 5, lines 21-24) further comprising comprises a polyurethane coating (top coat, col. 8, lines 9-13).

33. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a polyurethane coating in the cured coating or layer of Wang et al. to provide surface gloss or shine (Eby et al., col. 10, lines 19-22).

34. Claims 21-22 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. (U.S. Patent No. 4,863,782) in view of Eby et al. (U.S. Patent No. 6,753,066) and Schmidle et al. (U.S. Patent No. 4,491,616) and Courtoy et al. (U.S. Patent No. 7,090,910).

35. Regarding claims 21, 24, and 26, Wang et al. teaches a surface covering (See Title) comprising a substrate (felt layer 60, col. 9, lines 27-28), a plastic layer applied over the substrate (foamed layer 62, col. 9, line 29-30) containing a foaming agent (col. 9, lines 30-35), a first printing ink in a first pattern on said plastic layer (printing design 64, col. 9, line 41, Fig. 10), and a non curable coating made from plastisol (col. 9, lines 9-16 and 62-68) given that it is clear the second layer 66 (col. 9, line 65) is made from PVC plastisol similar to wearlayer 24 (col. 9, lines 14-16) given that second layer 66 is also a transparent wearlayer (col. 9, lines 66-67) similar to wearlayer 24 (col. 9, lines 12-13) overlaying the plastic layer and the ink (second layer 66, col. 9, lines 64-65, Fig. 10). A layer is considered to be a coating.

36. Wang et al. fails to teach a cured coating overlaying the non-curable coating.

37. However, Eby et al. teaches a surface covering (See Title) wherein a cured coating overlaying an ink is mechanically embossed (col. 3, lines 46-62 and 35-39).

38. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a cured coating overlaying the non-curable coating of Wang et al. to further protect underlying layers.

39. Wang et al. fails to teach the first printing ink containing a photoinitiator or that the plastic layer is gelled.

40. However, Schmidle et al. teaches a surface covering (See Title) comprising an ink containing a photoinitiator (col. 9, lines 3-8, col. 12, lines 1-4, col. 3, lines 54-62).

41. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a photoinitiator in the ink of Wang et al. to create surface areas with an embossed flat, dead, or dull mat finish or texture (Schmidle et al, col. 3, lines 54-59).

42. Schmidle et al. further teaches wherein a plastic layer is gelled (col. 6, line 39, col. 7, line 67).

43. It would have been obvious to one of ordinary skill in the art at the time of the invention to gel the plastic layer of Wang et al. for easier handling and processing (col. 7, line 67-col. 8, line 34).

44. Wang et al. fails to teach a second printing ink containing a second photoinitiator and an expansion inhibitor in a second pattern or that portion of the gelled plastic layer that does not underlie the second printing ink expands.

45. However, Courtoy et al. teaches a surface covering (See Title) a second printing ink containing a second photoinitiator and an expansion inhibitor in a second pattern (col. 3, lines

44-46) and that portion of the plastic layer that does not underlie the second printing ink expands (col. 4, lines 36-38).

46. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a second printing ink on the surface of the gelled plastic layer of Wang et al. as modified by Schmidle et al. to be a joint between two tiles so as to imitate ceramic tiling (col. 3, lines 53-55) and to have the portion of the plastic layer of Wang et al. as modified by Schmidle et al. that does not underlie the second printing ink expand for a smooth over (Courtoy et al., col. 4, line 36).

47. Wang et al. as modified by Eby et al., Schmidle et al., and Courtoy et al. teaches a surface covering (Wang et al., See Title) mechanically embossing the second, curable coating in areas that are not disposed over the first and second printing inks, wherein the portion of the cured coating or cured layer, which is not overlaying or disposed over the first and second printing inks, is embossed with a first texture and the cured coating not overlaying or disposed over the first and second printing inks is mechanically embossed with a second texture, given that with the inclusion of the photoinitiator of Schmidle et al. in the inks of Wang et al. the portion of the cured coating that is not disposed over the inks will have a texture different from the portion of the cured coating disposed over the inks (Schmidle et al., See Figure 4A).

48. The limitations “obtained by a method of making a surface covering...k. curing the second, curable coating” and “mechanically embossed” are process limitations. It is noted that “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the

same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process”, *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Further, “although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product”, *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983). See MPEP 2113.

49. Therefore, absent evidence of criticality regarding the presently claimed process and given that Wang et al. as modified by Eby et al., Schmidle et al., and Courtoy et al. meets the requirements of the claimed surface covering, the prior art clearly meets the requirements of present claims. Furthermore, the claimed limitations of embossing are taught by the prior art, as disclosed above.

50. Regarding claim 22, Wang et al. teaches a surface covering (See Title) which comprises a substrate (felt layer 60, col. 9, lines 27-28), a foamed and chemically embossed plastic layer overlaying the substrate (foamed layer 62, col. 9, line 29-30, col. 10, lines 31-39), a first printing ink in a first pattern design on said foamed plastic layer (printing design 64, col. 9, line 41, Fig. 10), and a non cured coating overlaying the foamed plastic layer and the first printing ink (second layer 66, col. 9, lines 64-65, Fig. 10).

51. Wang et al. fails to teach a cured coating or cured layer overlaying the non-cured coating.

52. However, Eby et al. teaches a surface covering (See Title) wherein the portion of the cured coating or layer overlaying an ink is chemically and/or mechanically embossed (col. 3, lines 46-62 and 35-39).

53. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a cured coating overlaying the non-cured coating of Wang et al. to further protect underlying layers.

54. Wang et al. fails to teach a first printing ink containing a photoinitiator.

55. However, Schmidle et al. teaches a surface covering (See Title) comprising a printing ink containing a photoinitiator (col. 9, lines 3-8, col. 12, lines 1-4, col. 3, lines 54-62).

56. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a photoinitiator in the first printing ink of Wang et al. to create surface areas with an embossed flat, dead, or dull mat finish or texture (Schmidle et al, col. 3, lines 54-59).

57. Wang et al. fails to teach a second printing ink containing a second photoinitiator and an expansion inhibitor in a second pattern or that portion of the plastic layer that does not underlie the second printing ink expand upon exposure to heat.

58. However, Courtoy et al. teaches a surface covering (See Title) a second printing ink containing a second photoinitiator and an expansion inhibitor in a second pattern (col. 3, lines 44-46) and that portion of the plastic layer that does not underlie the second printing ink expands (col. 4, lines 36-38).

59. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a second printing ink on the surface of the foamed plastic layer of Wang et al. as modified by Schmidle et al. to be a joint between two tiles so as to imitate ceramic tiling (col. 3, lines 53-55) and to have the portion of the foamed plastic layer of Wang et al. as modified by Schmidle et al. that does not underlie the second printing ink expand for a smooth over (Courtoy et al., col. 4, line 36).

60. Limitations regarding “heating”, “chemically embossed”, “mechanically embossed”, and “upon exposure to heat” are process limitations. It is noted that “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process”, *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Further, “although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product”, *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983). See MPEP 2113.

61. Therefore, absent evidence of criticality regarding the presently claimed process and given that Wang et al. as modified by Eby et al. and Schmidle et al. and meets the requirements of the claimed surface covering, the prior art clearly meets the requirements of present claims. Furthermore, the recited limitations are taught by the prior art, as disclosed above.

62. Regarding claim 25, Wang et al. fails to teach wherein the cured coating or cured layer further comprising comprises a polyurethane coating.

63. However, Eby et al. teaches a surface covering (See Title) wherein a cured layer (wear layer, col. 5, lines 21-24) further comprising comprises a polyurethane coating (top coat, col. 8, lines 9-13).

64. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a polyurethane coating in the cured coating or layer of Wang et al. to provide surface gloss or shine (Eby et al., col. 10, lines 19-22).

65. Claims 21- 22 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Courtoy et al. (U.S. Patent No. 7,081,291) in view of Wang et al. (U.S. Patent No. 4,863,782).

66. Regarding claim 21, Courtoy et al. teaches a surface covering obtained by a method of making a surface covering (See Title) which comprises: a. applying over a substrate a plastic layer containing a foaming agent (col. 3, lines 25-26, Fig. 1, col. 4, lines 65-66); b. heating the plastic layer to a temperature which gels the plastic layer to form a gelled plastic layer intrinsically having a surface (col. 3, lines 26-28); c. applying to the surface of the gelled plastic layer a first printing ink containing a first photoinitiator in a first pattern design (col. 3, lines 28-30) and a second printing ink containing a second photoinitiator and an expansion inhibitor in a second pattern (col. 3, lines 31-35); e. applying a second, curable coating (curable coating 5, col. 3, lines 51-55, col. 4, lines 58-60); f. gelling said second coating (col. 4, lines 60-61); g. mechanically embossing the second, curable coating (col. 4, lines 61-63), h. activating (expose to ultraviolet) said first photoinitiator and curing the surface areas of the second, curable coating disposed over the first printing ink (col. 4, lines 63-65, col. 9, lines 41-43); i. heating the second, curable coating, the plastic layer and the substrate, wherein the mechanical embossing in areas that are not disposed over the first printing ink is relaxed and that portion of the plastic layer that

does not underlie the second printing ink expands (col. 4, lines 17-25), j. mechanically embossing the second, curable coating in areas that are not disclosed over the first and second printing inks (curable coating 5, Fig. 4), k. curing the second, curable coating, the surface covering comprising: a. the substrate, b. the gelled plastic layer overlaying the substrate, c. the first and second printing inks printed in a pattern or design on said gelled plastic layer, e. the cured coating wherein the cured coating overlaying the first and second printing inks is mechanically embossed with a first texture and the cured coating not overlaying the first and second printing inks is mechanically embossed with a second texture (col. 4, lines 32-36 and line 50-col. 5, line 12, col. 9, lines 35-40).

67. Courtoy et al. fails to teach a first, non-curable coating.

68. However, Wang et al. teaches a surface covering (See Title) comprising a first, non-curable coating made from plastisol applied over a plastic layer and printing ink (second layer 66, foamed layer 62, printing design 64, col. 9, lines 9-16 and 62-68, Fig. 10) given that the second layer 66 of Wang et al. is a wearlayer similar to wearlayer 24, which is made from plastisol.

69. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a first, non-curable coating over the plastic layer and first and second printing inks of Courtoy et al. to protect the printing inks (Wang et al., col. 9, lines 9-16 and 62-68).

70. The limitations “obtained by a method of making a surface covering... k. curing the second, curable coating”, “mechanically embossed”, and “drying” are process limitations. It is noted that “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does



not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process”, *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Further, “although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product”, *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983). See MPEP 2113.

71. Therefore, absent evidence of criticality regarding the presently claimed process and given that Courtoy et al. as modified by Wang et al. meets the requirements of the claimed surface covering, the prior art clearly meets the requirements of present claims.

72. Regarding claim 22, Courtoy et al. teaches a surface covering (See Title) which comprises: a. a substrate (sheet substrate 2, col. 4, line 53), b. a foamed and chemically embossed plastic layer overlaying the substrate (foamable plastic layer 1, col. 4, lines 52-53, Fig. 2), c. a first printing ink containing a photoinitiator printed in a first pattern design on said foamed plastic layer (first printing ink 3, col. 4, lines 54-58) and a second printing ink containing a second photoinitiator and an expansion inhibitor in a second pattern (second printing ink 4, col. 4, lines 55-58) whereby portions of the foamed plastic layer that do not underlie the second printing ink expand upon exposure to heat (col.4, lines 23-25), e. a cured coating or a cured layer wherein the portion of the cured coating or the cured layer disposed over the first and second inks is chemically and/or mechanically embossed (col. 4, lines 60-63, col. 5, line 4).

73. Courtoy et al. fails to teach a first, non-curable coating.

74. However, Wang et al. teaches a surface covering (See Title) comprising a first, non-curable coating made from plastisol (col. 9, lines 9-16 and 62-68) applied over a plastic layer and printing ink (second layer 66, foamed layer 62, printing design 64, col. 9, lines 64-65, Fig. 10).

75. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a first, non-curable coating over the foamed plastic layer and first and second printing inks of Courtoy et al. to protect the printing inks (Wang et al., col. 9, lines 9-16 and 62-68).

76. Regarding claim 24, Courtoy et al. teaches wherein the portion of the cured coating or cured layer, which is not disposed over the first and second printing inks, is mechanically embossed with a texture different from the mechanically embossed portion of the cured coating disposed over the first and second printing inks (col. 4, lines 32-36, col. 5, lines, 5-8).

77. Regarding claim 25, Courtoy et al. teaches wherein the cured coating or cured layer further comprises a polyurethane coating (col. 4, lines 37-38).

78. Regarding claim 26, Courtoy et al. teaches a surface covering obtained by a method of making a surface covering (See Title) which comprises: applying a plastic layer over a substrate (col. 3, lines 25-26, Fig. 1); heating the plastic layer to a temperature which gels the plastic layer to form a gelled plastic layer intrinsically having a surface (col. 3, lines 26-28); applying to the surface of the gelled plastic layer a first printing ink containing a first photoinitiator in a first pattern (col. 3, lines 28-30) and a second printing ink containing a second photoinitiator and an expansion inhibitor in a second pattern (col. 3, lines 31-35); applying a curable coating (curable coating 5, col. 3, lines 51-55, col. 4, lines 58-60); drying the curable coating given that the curable coating is cooled (col. 10, lines 4-6); gelling at least the curable coating (col. 4, lines 60-61); mechanically embossing the curable coating (col. 4, lines 61-63); activating the first

photoinitiator and curing the surface areas of the curable coating disposed over the first printing ink (col. 4, lines 63-65); heating the curable coating, the gelled plastic layer and the substrate to relax the mechanical embossing in areas not disposed over the first printing ink and such that portions of the gelled plastic layer not underlying the second printing ink expand (col. 4, lines 17-25); and mechanically embossing the curable coating in the areas not disposed over the first and second printing inks such that the mechanical embossing of the areas not disposed over the first and second printing inks differs from the mechanical embossing of the areas disposed over the first and second printing inks, and curing the curable coating col. 4, lines 32-36 and line 50-col. 5, line 12, col. 9, lines 35-40).

79. Courtroy et al. fails to teach a non-curable coating.

80. However, Wang et al. teaches a surface covering (See Title) comprising a first, non-curable coating made from plastisol applied over a plastic layer and printing ink (second layer 66, foamed layer 62, printing design 64, col. 9, lines 9-16 and 62-68, Fig. 10) given that the second layer 66 of Wang et al. is a wearlayer similar to wearlayer 24, which is made from plastisol.

81. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a non-curable coating over the curable coating of Courtroy et al. to protect the printing ink (Wang et al., col. 9, lines 9-16 and 62-68).

82. The limitations "obtained by a method of making a surface covering... k. curing the second, curable coating", "mechanically embossed", and "drying" are process limitations. It is noted that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does

not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process”, *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Further, “although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product”, *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983). See MPEP 2113.

83. Therefore, absent evidence of criticality regarding the presently claimed process and given that Courtoy et al. as modified by Wang et al. meets the requirements of the claimed surface covering, the prior art clearly meets the requirements of present claims.

84. Claims 21- 22 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Courtoy et al. (U.S. Patent No.7,090,910) in view of Wang et al. (U.S. Patent No. 4,863,782).

85. Regarding claim 21, Courtoy ‘910 teaches a surface covering obtained by a method of making a surface covering (See Title) which comprises: a. applying a plastic layer over a substrate (col. 3, lines 38-39, Fig. 1); b. heating the plastic layer to a temperature which gels the plastic layer to form a gelled plastic layer intrinsically having a surface (col. 3, lines 39-41); c. applying to the surface of the gelled plastic layer a first printing ink containing a first photoinitiator in a first pattern design (col. 3, lines 41-43) and a second printing ink containing a second photoinitiator and an expansion inhibitor in a second pattern (col. 3, lines 44-47); e. applying a second, curable coating (curable coating 5, col. 3, lines 64-66, col. 5, lines 4-5); f.

gelling said second coating (col. 5, lines 6-7); g. mechanically embossing the second, curable coating (col. 5, lines 7-8); h. activating (expose to ultraviolet) said first photoinitiator and curing the surface areas of the second, curable coating disposed over the first printing ink (col. 5, lines 9-11); i. heating the second, curable coating, the gelled plastic layer and the substrate, wherein the mechanical embossing in areas that are not disposed over the first printing ink is relaxed and that portion of the plastic layer that does not underlie the second printing ink expands (col. 4, lines 30-38), j. mechanically embossing the second, curable coating in areas that are not disclosed over the first and second printing inks (col. 5, lines 7-8, Fig. 4), k. curing the second, curable coating, the surface covering comprising: a. the substrate, b. the gelled plastic layer overlaying the substrate, c. the first and second printing inks printed in a pattern or design on said gelled plastic layer, e. the cured coating wherein the cured coating overlaying the first and second printing inks is mechanically embossed (col. 4, line 63-col. 5, line 22, col. 11, lines 7-12).

86. Courtroy '910 fails to teach a first, non-curable coating.

87. However, Wang et al. teaches a surface covering (See Title) comprising a first, non-curable coating made from plastisol applied over a plastic layer and printing ink (second layer 66, foamed layer 62, printing design 64, col. 9, lines 9-16 and 62-68, Fig. 10) given that the second layer 66 of Wang et al. is a wearlayer similar to wearlayer 24, which is made from plastisol.

88. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a first, non-curable coating over the plastic layer and printing ink of Courtroy '910 to protect the printing ink (Wang et al., col. 9, lines 9-16 and 62-68).

89. The limitations “heating”, “obtained by a method of making a surface covering... k. curing the second, curable coating”, “mechanically embossed”, and “drying” are process limitations. It is noted that “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process”, *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Further, “although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product”, *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983). See MPEP 2113.

90. Therefore, absent evidence of criticality regarding the presently claimed process and given that Courtoy ‘910 as modified by Wang et al. meets the requirements of the claimed surface covering, the prior art clearly meets the requirements of present claims.

91. Regarding claim 22, Courtoy ‘910 teaches a surface covering (See Title) which comprises: a. a substrate (sheet substrate 2, col. 4, line 66), b. a foamed and chemically embossed plastic layer overlaying the substrate (foamable plastic layer 1, col. 4, lines 65-66, Fig. 2), c. a first printing ink containing a photoinitiator printed in a first pattern design on said foamed plastic layer (first printing ink 3, col. 4, line 67-col. 5, line 1) and a second printing ink containing a second photoinitiator and an expansion inhibitor in a second pattern (second printing ink 4, col. 5, lines 1-4) whereby portions of the plastic layer that do not underlie the second printing ink expand upon exposure to heat (col. 4, lines 36-38), e. a cured coating or a

cured layer wherein the portion of the cured coating or the cured layer disposed over the first and second inks is mechanically embossed (col. 5, lines 6-8).

92. Courtoy '910 fails to teach a first, non-curable coating.

93. However, Wang et al. teaches a surface covering (See Title) comprising a first, non-curable coating made from plastisol applied over a plastic layer and printing ink (second layer 66, foamed layer 62, printing design 64, col. 9, lines 9-16 and 62-68, Fig. 10) given that the second layer 66 of Wang et al. is a wearlayer similar to wearlayer 24, which is made from plastisol.

94. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a first, non-curable coating over the foamed plastic layer and printing ink of Courtoy '910 to protect the printing ink (Wang et al., col. 9, lines 9-16 and 62-68).

95. Regarding claim 24, Courtoy '910 teaches wherein the portion of the cured coating or cured layer, which is not disposed over the first and second inks, is mechanically embossed with a texture different from the mechanically embossed portion of the cured coating disposed over the first and second inks (col. 4, lines 45-46, col. 5, lines, 18-21).

96. Regarding claim 25, Courtoy '910 teaches wherein the cured coating or cured layer further comprises a polyurethane coating (col. 4, lines 50-51).

97. Regarding claim 26, Courtoy '910 teaches a surface covering obtained by a method of making a surface covering (See Title) which comprises: applying a plastic layer over a substrate (col. 3, lines 38-39, Fig. 1); heating the plastic layer to a temperature which gels the plastic layer to form a gelled plastic layer intrinsically having a surface (col. 3, lines 39-41); applying to the surface of the gelled plastic layer a first printing ink containing a first photoinitiator in a first

pattern (col. 3, lines 41-43) and a second printing ink containing a second photoinitiator and an expansion inhibitor in a second pattern (col. 3, lines 44-47); applying a curable coating (curable coating 5, col. 3, lines 64-66, col. 5, lines 4-5); drying the curable coating given that the curable coating is cooled (col. 10, lines 4-6); gelling at least the curable coating (col. 5, lines 6-7); mechanically embossing the curable coating (col. 5, lines 7-8); activating the first photoinitiator and curing the surface areas of the curable coating disposed over the first printing ink (col. 5, lines 9-11); heating the curable coating, the plastic layer and the substrate to relax the mechanical embossing in areas not disposed over the first printing ink and such that portions of the plastic layer not underlying the second printing ink expand (col. 4, lines 30-38); and mechanically embossing the curable coating in the areas not disposed over the first and second printing inks such that the mechanical embossing of the areas not disposed over the first and second printing inks differs from the mechanical embossing of the areas disposed over the first and second printing inks and curing the curable coating embossed (col. 4, line 45-46 and line 63-col. 5, line 22, col. 11, lines 7-12).

98. Courtoy '910 fails to teach a non-curable coating.

99. However, Wang et al. teaches a surface covering (See Title) comprising a first, non-curable coating made from plastisol applied over a plastic layer and printing ink (second layer 66, foamed layer 62, printing design 64, col. 9, lines 9-16 and 62-68, Fig. 10) given that the second layer 66 of Wang et al. is a wearlayer similar to wearlayer 24, which is made from plastisol.



100. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a non-curable coating over the curable coating of Courtoy '910 to protect the printing ink (Wang et al., col. 9, lines 9-16 and 62-68).

101. The limitations "obtained by a method of making a surface covering... k. curing the second, curable coating", "mechanically embossed", and "drying" are process limitations. It is noted that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process", *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Further, "although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product", *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983). See MPEP 2113.

102. Therefore, absent evidence of criticality regarding the presently claimed process and given that Courtoy '910 as modified by Wang et al. meets the requirements of the claimed surface covering, the prior art clearly meets the requirements of present claims.

#### ***Response to Arguments***

103. Applicants' arguments filed 24 October 2011 have been fully considered but they are not persuasive.

104. Applicants amended independent claim 21 to include plastic layer “containing a foaming agent” and claims 26 to overcome 112, second paragraph of record.

105. Applicants argue that, with respect to Wang, “hardenable” is not equivalent as “non-curable” or “curable”.

106. However, given that curing results in hardening and given that claims only require layer to be “curable”, the Examiner's position remains that a layer that is hardenable would also necessarily have to be curable absent evidence to the contrary.

107. Applicants argue that Eby fails to disclose operations g) to j).

108. However, note that while Eby does not disclose all the features of the present claimed invention, Eby is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely use of a cured coating in a surface covering, and in combination with the primary reference, discloses the presently claimed invention.

109. Applicants argue that an ink can not be the non-curable coating as presently claimed and are “surprised by the wide interpretation” regarding the term “ink”.

110. However, it is not clear why an ink could not be considered a noncurable coating. Given that the ink coats the substrate and is not cured, the Examiner's position remains that Eby meets the limitation of the claim.

111. Applicants argue that “the non-curable layer is clearly distinct from the ink and this fact cannot just be ignored by the Examiner”.

112. However, the fact remains that there is nothing in the claims that excludes the Examiner from considering an ink to be a non-curable coating.

113. Applicants argue that Schmidle fails to teach operations g) to j).

114. However, note that while Schmidle does not disclose all the features of the present claimed invention, Schmidle is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely use of a photoinitiator in the ink in a surface covering, and in combination with the primary reference, discloses the presently claimed invention.

115. Applicants argue that Courtoy fails to teach operations g) to j).

116. However, note that while Courtoy does not disclose all the features of the present claimed invention, Courtoy is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely use of a second printing ink in a surface covering and portion of the plastic layer that does not underlie the second printing ink expands, and in combination with the primary reference, discloses the presently claimed invention.

117. Applicants argue that none of the cited references suggest “a non-curable layer overlying an ink or a plurality of inks and onto which is applied onto a curable layer”.

118. It is agreed that no single reference discloses the cited limitation. However, the Examiner's position remains that Wang et al. in view of Eby et al., Schmidle et al., and Courtoy et al. does teach "a non-curable layer overlying an ink or a plurality of inks and onto which is applied onto a curable layer".

119. Applicants argue that "the Courtoy references should be considered as being the closest references instead of Wang."

120. However, it is noted that the Examiner has used Courtoy '910 in an alternate rejection.

121. Applicants argue that Courtoy references disclose combination of mechanical embossing and chemical embossing while Wang discloses only a chemical embossing.

122. It is agreed that Wang only discloses chemical embossing which is used in combination with Courtoy which provides motivation for also using mechanical embossing.

### ***Conclusion***

123. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

124. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHENG YUAN HUANG whose telephone number is (571) 270-7387. The examiner can normally be reached on Monday-Thursday from 10 AM to 6 PM.

125. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho, can be reached at 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

126. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. H./

Cheng Yuan Huang

Examiner, Art Unit 1787

November 14, 2011

/Callie E. Shosho/  
Supervisory Patent Examiner, Art Unit 1787

